

SUPPLEMENTAL AMENDMENT UNDER 37 C.F.R. § 1.116
U.S. Appln. No. 10/045,651
Attorney Docket No. Q80298

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

Claims 1. – 15. (canceled)

16. (currently amended) A method for recording an image to be recorded by a direct image scanner on an upper layer of a multi-layered printed circuit board substrate in alignment with a pattern on a lower layer thereof, the method comprising:

detecting at least two holes provided in the upper layer of a multi-layered printed circuit board substrate that includes said upper layer and at least one lower layer, said at least two holes being provided in predetermined alignment to said a pattern formed on said at least one lower layer and said at least two holes not passing through said upper layer without passing through said the lower layer located immediately beneath said upper layer, wherein said at least one lower layer is attached to said upper layer during said detecting; and

scanning an electrical circuit pattern on the upper layer in predetermined alignment with said at least two holes.

17. (previously presented) A method for recording an image on an upper layer of a multi-layered printed circuit board substrate, the method comprising:

forming at least one hole in an upper layer of a receiving a multi-layered printed circuit board substrate said comprising an upper layer being that is attached to at least one lower layer, of said lower layer including circuitry, said and said upper layer having formed thereon at least one hole passing therethrough without not passing through a the lower layer of circuitry located immediately beneath said upper layer, and said at least one hole having a known spatial orientation to a pattern the circuitry formed on a said at least one lower layer of the substrate;

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acquiring an image of the at least one hole, said upper layer being attached to said at least one lower layer during said acquiring;

calculating a location of the at least one hole from analysis of the image; and
recording a pattern on the upper layer with reference to said location.

18. (previously presented) The method for recording an image according to claim 17 and wherein said receiving a multi-layered printed circuit board comprises receiving multi-layered printed circuit board forming at least one hole comprises forming at least two holes formed with a laser micro-machining device.

19. (canceled)

20. (original) The method for recording an image according to claim 17 and wherein acquiring an image includes acquiring a digital image of the at least one hole.

21. (original) The method for recording an image according to claim 17 and wherein calculating a location of the at least one hole from analysis of the image comprises calculating a location of the at least one hole in a coordinate system of an image recording system.

22. (original) The method for recording an image according to claim 17 and wherein recording a pattern comprises photosensitizing said upper layer and scanning a pattern onto the upper layer with a laser direct imaging system.

23. (original) The method for recording an image according to claim 17 and wherein recording a pattern comprises photosensitizing said upper layer and imaging a pattern onto the upper layer through a mask.

24. (previously presented) A method according to claim 17 wherein said at least one hole comprises a plurality of holes arranged in a non-periodic hole pattern.

Claims 25. – 55 (canceled).